

Work Order ID 147173

Monday, June 06, 2016 11:02:25 AM

147173

Page 1

Item ID: D3462-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lug
Start Date: 6/6/2016 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 6/10/2016 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: sem Date: 16/06/06 Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3462	Rev C								

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.62

FLOW CNC Waterjet

1-Cut as per Dwg D3462

Dwg Rev: CProg Rev: C

3- Deburr if necessary

(14)

de 16/06/06

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.02

Quality Control

(14)

de 16/06/06

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER :							
Misidentified ☐	☐	Past Due								

Monday, June 06, 2016 11:02:25 AM

Page 2

[illegible]

DQA: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER : ☐																									

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Page 3

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 Required Date: 6/10/2016 Req'd Qty: 12.00 ***12*** Customer:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>WA002</u> Memo *****STOCK IN LARGE FAB***** LOCATION: WA002.	0.00 0.02				<u>14</u>		<u>16-06-07</u> <u>JBL</u>	
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.20						<u>MCS</u> <u>JUN 07 2016</u>	

MCS JUN 07 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Picklist Print

Monday, June 06, 2016 11:02:42 AM

Page 1 /

Work Order ID: 147173

147173

Parent Item: D3462-3

D3462-3

Parent Item Name: Lug

Start Date: 6/6/2016

Required Date: 6/10/2016

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV. A 05.11.18 NEW ISSUE EC
IPP Rev:B Now on Waterjet 06-06-16 JLM
esr rev B 08.07.15 ecn 1049 EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B0.375X03.000		Purchased	No			100	f	12.4000	0.266	3.36			

M304B0 375X03 000

M304 SS bar .375 x 3.00

on 6/6/16

Location

Loc Qty

Loc Code

MAT

12.4

m132876

0.4

m134696

12

4.5

DQA: _____ Date: _____



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D3065-5DART AEROSPACE LTD		Work Order:	K7173
Description: Lug		Part Number:	D3462-3
Inspection Dwg: D3462 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	0.258	✓		caliper	JCL-08
2.13	+/-0.030	2.13	✓		V=2-02	
2.55	+/-0.030	2.549	✓		M.G.	31006
R0.55	+/-0.030	0.550	✓		Rad. Gauge	
R0.50	+/-0.030	0.500	✓		"	
1.98	+/-0.030	1.980	✓		M.G.	31006
0.375	+/-0.010	0.375	✓		caliper	JCL-08

Measured by: <i>de/</i> DAS 32	Audited by: DAS 44	Prototype Approval:	N/A
Date: <i>16/06/06</i> 9-89	Date: <i>16-06-07</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.06.27	New Issue	KJ/JLM	
B	08.07.24	Dwg Rev updated	KJ/DD	

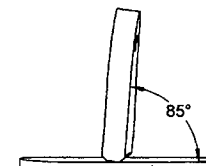
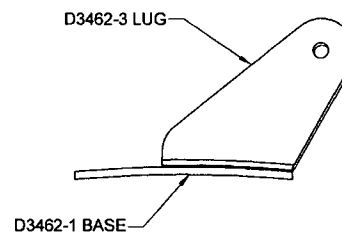
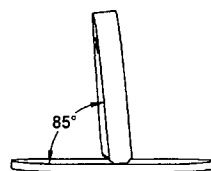
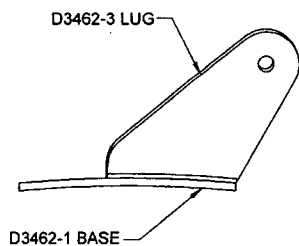
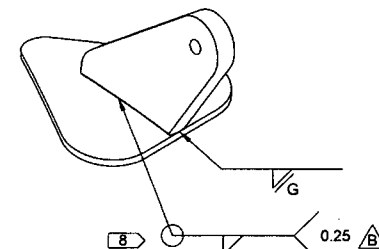
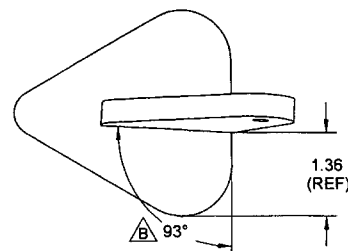
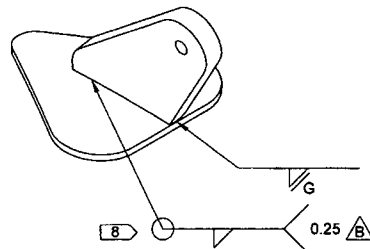
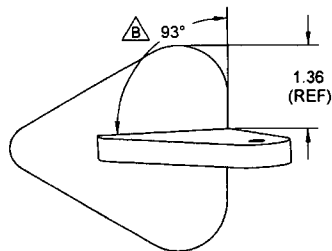
DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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OTHER : ☐					



D3462-041 BRACKET ASSEMBLY

D3462-042 BRACKET ASSEMBLY

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3462-041	BRACKET ASSEMBLY
	X	D3462-042	BRACKET ASSEMBLY
1	1	D3462-1	BASE
1	1	D3462-3	LUG

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3462-041" OR "D3462-042" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.75 lbs (TYP)
- 8) WELDING: PER DART QSI 004

RELEASED
600701/170

C	SHOW VIEWS OF D3462-041 & D3462-042, UPDATE DWG REASON: PRODUCTION FACILITY	DC	07.10.24
B	REVISE DIMENSIONS	RF	05.12.05
A	NEW ISSUE	RF	05.09.20
REV.	DESCRIPTION	BY	DATE
DESIGN	DP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VIP, DC		
CHECKED	HP	DRAWING NO.	REV. C
MFG. APPR.	HP	D3462	SHEET 1 OF 2
APPROVED	HP	TITLE	SCALE
DE APPR.	HP	BRACKET ASSEMBLY	1:2
DATE	07.10.24	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

w/o 147173

2m 16/06/06

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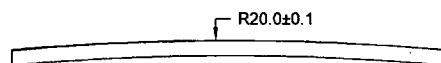
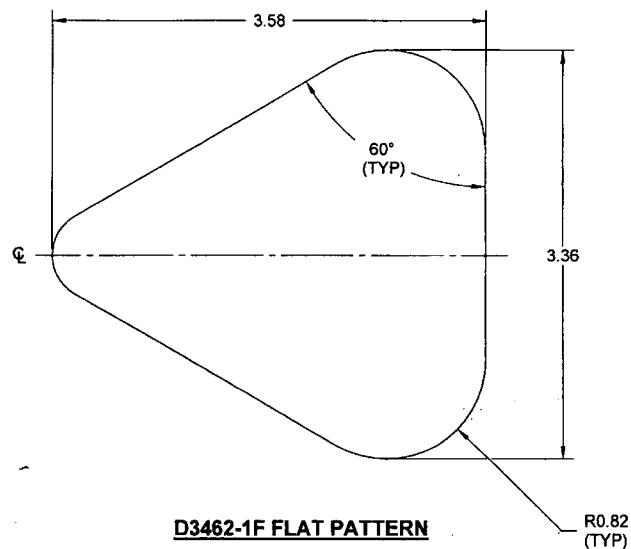


WORK ORDER NON-CONFORMANCE / UPDATE

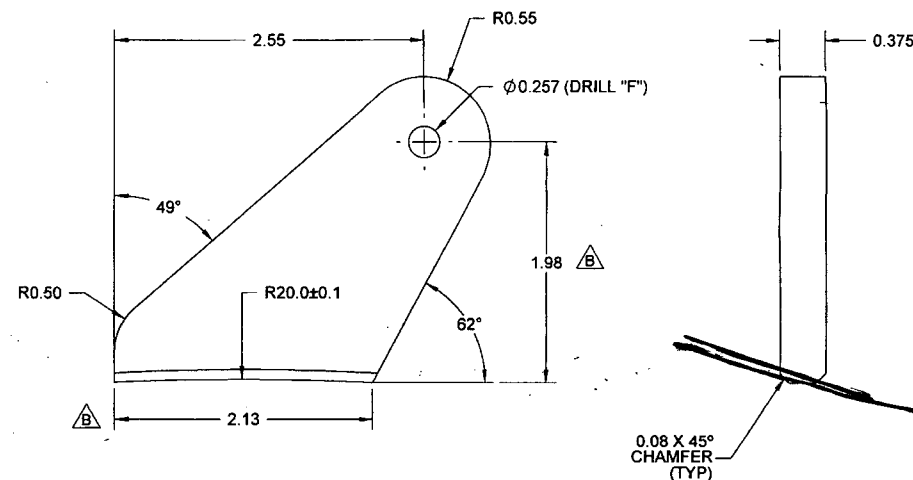
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- NOTES:**
- 1) MATERIAL: AISI 304 SS SHEET, 0.125 THICK
PER MIL-S-5019 (ANNEALED), 2B FINISH
(REF. DART SPEC. M304S11GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.28 lbs



- NOTES:**
- 1) MATERIAL: AISI 304 SS BAR
(REF. DART SPEC M304B0.375X03.000)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.47 lbs

RELEASED
8-07-07

DESIGN	TH	DART AEROSPACE LTD	
DRAWN	W.D. 2007.10.24	HAWKESBURY, ONTARIO, CANADA	
CHECKED	W.D.	DRAWING NO.	REV. C
MFG. APPR.	W.D.	D3462	SHEET 2 OF 2
APPROVED	W.D.	TITLE	SCALE
DE APPR.	W.D.	BRACKET ASSEMBLY	1:1
DATE	07.10.24	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						